THE MEDICAL EXAMINER,

And Record of Medical Science.

Vol. VII.] PHILADELPHIA, SATURDAY, APRIL 20, 1844. [No. 8

NOTES OF THREE CASES OF ANEURISM,

Met with in the Black Women's Medical Ward, Philadelphia Hospital, Blockley.

By Geo. N. Burwell, M. D., Resident Physician.

Service of Prof. Dunglison.

[These cases occurred in the wards during the clinical session of the present winter, and were made the subject of comment by Professor Dunglison. Some of his remarks have been given in the reports of the clinic at the Philadelphia Hospital.]

Case I.—Sarah Green, aged fifty-six years, entered the ward, November 21, 1843. She had then some fever, a quick, rapid pulse, cough, bronchitic expectoration and pain, sometimes in the chest, and again in one hypochondrium, which would shoot across into the other. There was no pain or tenderness of abdomen developed on pressure. Her bowels had been regular. She laboured under great depression of spirits, and thought she would die. She had been a hard-working woman; habits temperate. The usual remedies for sub-acute bronchitis were prescribed.

The second time I saw her was the evening before her death, and she had then evident sub-acute peritonitis; there was no severe fever, full or hard pulse; the pain on pressure was well marked but moderate in degree, and not such as to prevent her from changing her position without much suffering. Leeches and fomentations were directed to the abdomen,

The next morning (Dec. 1) she was apparently better, and so expressed herself; she had rested pretty well during the night; her bowels had been open two or three times.

While on the close-stool at noon, she suddenly fell over, was immediately laid on her bed, and died in ten minutes without uttering a word.

Post-mortem.—The first points that attracted our attention on opening the cavity of the abdomen, were recent coagula of blood among the convolutions of the intestines, and especially in the right hypochondriac region, where there lay so much coagulum as to suggest the idea of the rupture of an aneurism of the upper portion of the abdominal aorta: a large quantity was also found in the cavity of the pelvis. The serum of the blood lay principally in the lumbar regions. There was marked and general injection of the peritoneal coat of the intestines. No effusion of lymph was noticed.

On cleaning out the coagula, turning out the intestines, and searching for the source of the blood, it was found to have proceeded from an aneurism of the internal iliac artery of the left side, at its very origin. The aneurism was globular, and about an inch and a half in diameter; it was filled with the usual laminæ of coagula, and infringed somewhat on the origin of the external iliac artery of the same side. It had given away on its upper surface. The cellular tissue connecting the various tissues and vessels of the part, and that over the promontory of the sacrum, was much thickened and indurated; there was also an effusion of lymph, of old standing, down the peritoneum, lining the rectum as far as the fundus uteri, which was tinged red by the blood.

Case 2.—Jane Knight, aged thirty-four years, of short stature, and generally a hard working woman, intemperate, entered the ward, December 28, 1843. The following were her prominent symptoms. The first and most obvious on looking at her, was a difficulty of breathing. This varied considerably on different days, without much apparent regularity, except in the morning about three o'clock, when, for ten or twelve days in succession before her death, she had at this hour excessive difficulty in getting her breath, and several times believed that her end had come. After thus suffering for some time, however, she would begin to expectorate, at the same time perspiring freely and in the sitting posture, and the paroxysm would pass off, leaving her much prostrated.

She had a harassing cough, and an expectoration which was peculiar. For the first week it was transparent, thick and pearly, and almost without froth. This amounted some days to a pint; at other times when she felt relieved, to not more than five or six ounces. It became more frothy later, and during the last two days, rusty.

The resonance of the chest was generally clear. Auscultation revealed the rhonchi often heard in complication of bronchitis with emphysema, the *cantus avium omnium* of Laennec, and a single cough would often change the character of all of them. These rhonchi were some days much less in amount, but never in extent, for they could be heard in every portion of the lungs; and again, without any assignable cause, they would become much aggravated.

There was more than ordinary dulness in the region of the heart, and a decidedly roughened first sound. The heart was irregular and spasmodic in its action; the impulse correspondingly quick and somewhat forcible. She had at first a slight increase of the heat of the skin, but not at all of that character and continuance belonging to frank inflammation: her pulse was that of irritation, generally hurried and feeble. She at no time complained of marked pain; the most was a sense of uneasiness or constriction about the chest. Her previous history threw no more light upon her disease than that she had had an attack similar to the present one, a few weeks before, which was relieved principally by blisters. She had not been well since, suffering most of the time with shortness of breath.

The treatment consisted of various expectorants and anodynes, but without any good effect: blisters were the only remedies which gave her relief, and these only while they were discharging. Three were applied.

Pneumonia succeeded, January 15, in the lower lobe of the left lung, and in two days thereafter she died.

The post-mortem examination revealed an aneurismal tumour of the arch of the aorta about two inches in diameter, which was filled with laminated coagula. It had not ruptured, although in one place the sac was much thinner. The coats of the aorta

about its origin were much thickened, and lymph had been deposited so as entirely to obstruct the orifice of the left carotid artery. From the valves to the arteria-innominata the internal membrane of the aorta had the bright red injection of inflammation; the valves and the endocardium were unaffected by this. The aneurism was closely adherent to the œsophagus on the left, and made considerable pressure upon, and was also partially attached to, the trachea. One of the mitral valves was so much atrophied that it had but half the width of the other; there was decided hypertrophy of the left ventricle. The lower lobe of the left lung was shown to be the seat of pneumonia in the second stage.

Case 3.—Caroline Welsh, a cook, aged forty years, born in the West Indies, but has lived in this country since she was seven years of age.

Entered the ward, January 26, 1844, with a sharp pleuritic pain in the left axilla; heat of skin moderate; pulse accelerated but feeble; cough; expectoration rather abundant, of a frothy mucus, somewhat viscid, and at times tinged with blood; has kept her bed for two weeks only; generally enjoys good health, and for the last year suffered only from slight cold; is not emaciated.

Has had the cough for three months, but not as bad as at present. When the present attack commenced she "puked" blood (not coughed it up, she says) for two or three mornings, and at evening spat up blood; has never had chills, or night sweats, and the fever is of recent date.

Has been short-breathed for six years, especially when working hard; this has been *bad* for the last three and a half months; has had more or less of palpitation of the heart for the last six months, but not at all violent; has had, for some time, a pain at the junction of the second rib of the right side with the sternum, and this place is quite tender on pressure.

Physical Signs.—Percussion anteriorly on left side resonant over the usual space, and does not show the heart to be notably enlarged. On the right side anteriorly, the percussion flat throughout; posteriorly, more resonant on the right side over the lower lobe, than over the lower lobe left side.

On auscultation we find the air passes into the upper lobe of the *left lung*, while throughout the lower lobe and axilla (in the seat of the pain) a rather fine submucous rhonchus is heard.

Right Lung.—Over the upper lobe, *anteriorly*, can hear scarcely anything except on making the patient distend her chest well and rapidly, when a very *feeble* sound is heard, approaching to bronchial respiration. The resonance of the voice here is also an approach to bronchophony, but not near as distinct as we hear in tubercular consolidation of the lung of this part, where the percussion is so perfectly flat as it is here. *Posteriorly*, the vesicular murmur is heard.

On ascultating the heart, found the *first* sound roughened; the *second* distinct; the impulsion not at all exaggerated.

At the tender point, at the junction of the second rib with the sternum, there was a well marked pulsation which was heaving, and would raise the fingers when pressed upon it. There was also a greater swelling or expansion of this part of the chest than of the corresponding part of the left side. Both sounds of the heart could be heard here as distinctly as over the heart, but different in character. They were both altered, roughened, without being either a whiffing or bellows sound, or a rasp. No aneurismal thrill could be heard or felt. The pulsation of the carotids of the two sides perfectly similar.

She was cupped, and afterwards blistered for the pain in the left axilla; had also the neutral mixture. She was much relieved of this during the next two or three days, and was enabled to breathe more freely; her pulse fell, and the heat of the skin diminished without her gaining any strength.

Wednesday night, Jan. 31, she was taken with sudden and very great difficulty in breathing, so that she was obliged to sit up in bed, and for some time feared immediate death. Not being sent for by the nurse, I did not see her until the morning visit. She was then somewhat relieved, but evidently suffering greatly, and the perspiration standing in large drops all over her face. The pain and prominence at the top of the sternum had increased very much. The pulsation could be felt, as before, at the second rib, and also as low down as the fifth rib, but much diminished from what it was at the second rib. The sounds over the tumour were not clearly divisible into two, but were of a continuous rumbling nature. Pulse very feeble, not counted. Her prostration prevented a more minute examination into the condition of the lungs. I should say also, that during the night she spat largely of blood and mucus.

The palliative was the only course of treatment that could properly be adopted. The night of February 2d, she became insensible, and lay so until Sunday morning (the 4th), two o'clock, when she died.

Post-mortem examination twelve hours after death.

On taking up the sternum, we found the right side of the chest occupied by a large mass or tumour, instead of the lung, which was flat on percussion, and accounted also for the bulging of the chest. The upper part of this was so adherent to the first, second, and third ribs, that portions of them were removed with it. The left lung crepitant throughout. There was an effusion of lymph on the pleura at the point corresponding with the pain in left axilla, about the size of a dollar.

The right lung was covered with lymph, the result of old pleurisy, and was more or less adherent throughout, except at its upper, inner, and posterior part. It was crepitant, though in a moderate degree, in the upper and middle lobes, while in the lower lobe it was consolidated and thinned by compression against the posterior part of the chest, by large recent coagula of blood which had been effused into the pleura anterior to the lung. The heart was somewhat dilated, but not hypertrophied. The *descending* aorta healthy from the arch. The *arch* and the *ascending* portion were dilated and studded with several large plates of bone. Just at the origin of the arteria-innominata was found the orifice of an aneurism, which was about an inch and a half in diameter. It was this which filled up all of the upper portion of the anterior part of the right chest, extending from the sternum to the axilla, and from the first to the fifth rib, and pressing the lung posteriorly. At the lower portion of the sac was found the orifice where it had given away, and thence the effusion of blood which had compressed the lower lobe of the right lung. This probably occurred the Wednesday night she was taken worse, and therefore three days before her death. The aneurismal sac was filled with coagula, from the most of which the red particles had been removed, and which could be separated into layers.

The *parietes* of the sac consisted of a dilatation of the middle and external coats, and probably of the internal coat also, of the aorta. Its inner surface was rough, and studded with bony particles precisely

like the inner surface of the ascending and arch of the aorta.

The left ventricle was found empty; the right ventricle had coagula of blood in it, which extended also into the pulmonary artery.

CASE IN WHICH A BILIARY CALCULUS OF UNUSUAL SIZE WAS SAFELY PASSED.

By James Couper, M. D, of Newcastle, Del.

Miss —— had her first attack of gall-stones on the 11th of October, 1841. It produced jaundice, and lasted for nearly a month. Her sufferings were occasionally very severe, but terminated on the expulsion of three or four small calculi. From the fall of 1841 to the month of December 1843, her general health was very good. On the 18th of that month she had another attack, which lasted until the 22d. The agony she endured for two days and nights before the stone left the gall duct was beyond description. Her life was evidently in great danger. On the 22d, the violent pain ceased rather suddenly, and on the next day she passed a biliary calculus of very unusual dimensions. When first discovered, it was covered with thick mucus. Its shape was globular. When cleared of mucus by washing, it measured nine-tenths of an inch in the longer diameter, and eight-tenths of an inch in the shorter. Its weight was not ascertained until after it had been kept for two weeks in a dry room. It then weighed seventy grains, apothecaries' weight. The colour of it was a dark yellow, and there seemed to be several distinct nuclei, which were of a darker hue than the rest of the stone. It is remarkable that no jaundice was produced on this occasion. A moderate degree of soreness over the region of the gall-bladder for a day or two was all the suffering that followed this severe attack.

Little need be said of the treatment. My object was to relax the system by free bleeding, to allay the pain by large doses of the sulphate of morphia, and to keep up the action of the bowels. This last point I accomplished by means of Dr. O'Bierne's invaluable rectum tube. Without it, I must have failed in this part of my plan, on account of the excessive irritability of the stomach and rectum.

By the politeness of our esteemed correspondent we have been permitted "to see and to handle" the gall-stone described in the above communication. It is fully of the size which he mentions, notwithstanding the loss of some particles from its surface and the contraction from drying. It is astonishing indeed that such masses can pass through the slender gall-ducts without more serious consequences than commonly happen. Morgagni, to whose great work our correspondent has referred us, (*De Causis et Sedibus Morborum*) mentions some remarkable cases of the kind, among others that of "the mother-in-law of the celebrated Van Swieten, who was liable to periodical paroxysms of jaundice." "At the end of two days, after very severe and excruciating pains in the seat of the duodenum itself," she "discharged one which equalled the joint of a man's thumb, and shortly after, two more of the same size, which bore marks of having been attached to the first. "And yet the great bulk of this calculus had not prevented it from struggling through the narrow passages of the ducts." "Nor is it to be wondered at," says the same author, "for although the ductus choledochus is narrow, although the cystic is still more narrow, and the passage of it impeded by valves, they are nevertheless membranous, and, for that reason, can bear almost incredible dilatation."

FATAL CASE OF STRANGULATION OF THE INTESTINE.

By Wm. M. M'Pheeters, M.D., of St. Louis, Mo.

S. C., aged 44 years, of large frame, and, when in health, unusually athletic, had been under treatment for more than a year past, for what was supposed to be scirrhus of the intestines. Such remedies were administered as were best calculated to palliate the symptoms, and put off a fatal termination of the disease as long as possible.

Feb. 12.—He seemed unusually well, ate a hearty breakfast, and walked about during the forenoon. About noon he was taken suddenly with an excruciating pain in the lower part of the abdomen, which resisted all treatment, and continued to increase in severity until twelve o'clock at night, when he expired, having suffered from the time of his attack the most intense agony. He manifested throughout no disposition to vomit. Three or four days before his death he observed to his wife, while lying in bed, that he felt an unusual sensation in the abdomen, as though his intestines were *tied in a knot;* from this time he had no operation from his bowels, yet he complained of no pain until noon of the day of his death.

Necroscopic Examination eleven hours after Death.

Assisted by Drs. Pallen and Pope, a large circular flap, adherent above, was cut out of the abdomen, exhibiting its contents in sitû. On removing this flap our attention was arrested by the very dark red, almost black appearances of the ileum, resembling in color, the spleen when highly engorged with blood. The appearance extended not only throughout all the coats of the intestine, but also to the mesentery.

On examination it was discovered that this congestion was owing to a complete strangulation of the intestine, caused by the ileum making *three entire revolutions on itself*, with the peritoneum as an axis, thus preventing not only the passage of the fæcal matter, but also entirely arresting the circulation of the blood.

The lower part of the ileum, nine inches from the caput coli, was the first point of strangulation; seven inches above this the ileum passed around the latter point, or rather they were several times twisted around each other. The ileum then dipped down into the cavity of the pelvis, parallel with the rectum, and crossing it opposite the promontory of the sacrum. About fifteen inches above the last point of strangulation the ileum again passed through and around the other points,—thus causing a *double bow-knot*, very tightly drawn together, with two knuckles of intestine, one three and a half, and the other seven and a half inches long, greatly distended with gas.

The portion of the ileum which was strangulated seemed to be confined in the pelvis opposite the promontory of the sacrum, though we could discover no adhesions or membranous bonds. From twelve to fifteen feet of the intestine was involved in the congestion, extending upwards from the point first mentioned.

The several points where the intestine passed

around itself were of a pale, almost white, color, presenting a marked contrast with the adjoining parts.

After the intestines were removed it was with some difficulty that the *twist* and *knot* could be relieved by pulling the knuckles through and untwisting.

The mesenteric glands of both the large and small intestines were considerably enlarged, and there was extensive scirrhous degeneration of the rectum, extending from the anus upwards six inches. Lungs not examined. The other viscera presented no marks of peculiar interest.

Remarks.—This case resembles somewhat that of the lamented Mr. Legare, late Attorney General of the United States, mentioned in the Boston Medical and Surgical Journal of last summer, although in his case the severity of the symptoms lasted for several days.

It is a curious matter of speculation how the intestines become tied up in the manner we sometimes find them. With the intestines attached to the mesentery and lying before him, I doubt whether the most ingenious manipulator could succeed in producing such a knot as was found in the present case; and yet nature effects it, we know not how.

St. Louis, Mo., March 16th, 1844.

BIBLIOGRAPHICAL NOTICES.

The Cyclopædia of Practical Medicine. Edited by John Forbes, M.D., F. R. S., Alexander Tweedie, M. D., F. R. S., and John Conolly, M. D. *Revised, with Additions.* By Robley Dunglison, M. D. Part I. Philadelphia: Lea and Blanchard. 1844. Royal Octavo.

This work consists of original articles on all the important subjects of medical science, contributed by many of the most eminent British Physicians, including Professors and distinguished Teachers in London, Edinburgh, Dublin, and Glasgow; gentlemen of great learning and experience in the profession, and known as successful cultivators of the several departments on which they have written. No work of the kind has issued from the press with better promise, or has more fully accomplished the objects proposed.

Part 1st, now published, contains twenty-three articles, by nearly as many different authors. These, although written with a brevity consistent with the design of the work, display much learning, judgment, and discrimination. The present number may be considered as a fair sample of the whole, and in that view cannot fail to be acceptable to those who may desire to possess such a work. It contains 152 pages, printed in double column, with new type, and on good paper.

The publishers announce that one *part* is to be issued every two weeks, until the whole is completed, which will be comprised in twenty-four parts; so that purchasers may expect to be in possession of the entire work in less than a year: a period quite brief enough, it must be admitted, for the accomplishment of such an undertaking. However, they are business men, with ample means; and the Editor, it is well known, is every way qualified for the task he has assumed; so that no apprehension need be felt for the punctual performance of all that is promised.

Fifteenth Annual Report of the Inspectors of the Eastern State Penitentiary of Pennsylvania. Read in the Senate and House of Representatives, March, 1844.

It is doubtless known to most of our readers that the system pursued in this prison is that of solitary confinement, the prisoners being completely isolated, except as to the occasional visits of particular officers.

No one, we think, can well dispute the superiority of this system over every other, so far as the suppression of crime and reformation of the convict is concerned; but the probable influence of such a treatment, under the most humane administration, on the health of the prisoners, physical and mental, has been the subject of much anxious thought and eloquent disquisition.

Nothing, it is clear, can solve the problem and quiet the fears of the benevolent, but the result of experiments fully and fairly carried out. On this account, the Annual Reports of the two Penitentiaries of Pennsylvania, are always deeply interesting to the Philanthropist as well as to the Physician and Legislator.

Thus far, experience has certainly sustained the hopes of the advocates of the solitary system, and greatly lessened the apprehensions of many who were once its opponents. The present Report may indeed be considered as almost conclusive, in regard to the points heretofore most in dispute.

It appears that: "The whole number of deaths during the past year was 11. Of these, 5 were white, and 6 coloured. The whole number of prisoners during the year, was 487; of these, 325 were white, and 162 coloured; showing a per centum of mortality of 1.53, as to the white, and 3.66, as to the coloured prisoners."

"The number of deaths among white and coloured was the same."

"There were admitted into the prison since the 1st day of January, 1843, 60 white prisoners, and 23 coloured prisoners, in good health; and 53 white, and 20 coloured prisoners, in imperfect health.

Two white prisoners, of the 53 admitted in imperfect health, were in the last stage of pulmonary consumption, under which they had been labouring for many months."

These facts, proclaimed by the inspectors, certainly exhibit no unusual mortality among the prisoners, and when we consider the habits of such persons prior to their admission, the proportion of deaths appears to us to have been remarkably small.

The means employed by the intelligent physician to promote the health of the prisoners, he has stated as follows: "Strict cleanliness of person and cell, free ventilation, abundance of clean and well dried bedding, regular exercise in the cell yards, moderate diet, a comfortable temperature, clean seasonable clothing and constant occupation,—have been at all times impressed on the officers as the surest means of preserving the health of the objects of their care."

In the opinion of Dr. Edward Hartshorne, physician of the Institution, the "more general use of flannel under-garments has had a remarkably salutary influence, which is fully shown by the diminished frequency and violence of rheumatisms, neuralgic-pains, colds and other disorders of that kind."

"The acute diseases have been," he observes, "with few exceptions, mild, and of short duration. They are similar in character, but appear to be, in general, less frequent and severe than among artisans of analogous occupations in the city. The chronic diseases have been, as heretofore, principally diseases of the digestive apparatus, rheumatic, neuralgic, and venereal affections: together with some tuberculous disease in the shape of scrofulous inflammation and phthisis. The last two are rare, except among the coloured population, and constitute among them a considerable amount of introduced incurable disease."

"Some of the cases of visceral disease are probably also due to vicious practices; but a large proportion of them must be attributed to the previous habits of the patients, who are so often found to have ruined their constitutions long before committed."

Dr. Hartshorne declares that he has "not been able to discover any disease peculiar to this penitentiary. Instances of general debility, resulting from various depressing causes, must of course sometimes occur; but they present an assemblage of symptoms sufficiently often met with in other prisons, and elsewhere in public and private practice."

"The amount of tuberculous disease developed in this institution has, thus far, within my sphere of observation, been much less than is generally imagined. Out of nine cases of scrofula, not more than one or two at furthest could be fairly laid to the account of any cause operating in confinement. Of eight cases of phthisis, only three appeared to have been developed in the cells. Two of these latter occurred in wretched subjects, and were evidently due, in a great degree, to causes existing before conviction. But one recent case has occurred among the whites since January last; the subject of this, entered in bad health and extremely low spirits, and being predisposed to consumption, soon presented well-marked symptoms. Nor has more than one case transpired among the coloured inmates during the same interval."

So far from the circumstances under which the prisoners in the Eastern penitentiary are placed, being unfavourable to health, it would appear that the mortality has been about the average of our city. From data obtained from authentic sources, the mortality among the population of Philadelphia, last year, is stated to have been:

- - -	White,	1.93
	Coloured,	2.70
Eastern Penitentiary,	White,	1.57
	Coloured,	3.66

In regard to the "influence of separate confinement on the mind," Dr. H. says that, from what he has seen, he has no reason to believe that it "may excite mental alienation in a criminal previously of sound mind."

"The circumstances under which many persons are committed to the cells, would seem to be sufficiently trying to overthrow a sensitive or feebly constituted mind, without the aid of other sinister influences. Yet the amount of continued mental distress, is much less than many inquirers would expect to find. The majority, unless agitated with the hope of pardon, sooner or later become reconciled to their fate, and support its privations with rational fortitude."

"Instead of stultifying the intellect, as some imagine, I am fully satisfied that separate imprisonment is more apt to produce the opposite effect. The perceptions are evidently rendered more acute by continued exertion under the difficulties of restraint. The reflective powers also are increased by their unwonted activity under the exigencies of a seclusion, uninterrupted except by intercourse with intelligent and considerate men.

"The acuteness of perception among criminals is proverbial in all prisons; and the experience of this one long since proved that these faculties are by no means blunted there. Nor are the statements in regard to the subdued temper, and improved habits of reflection among separate convicts, mere idle assertions; as all those who have watched the mental developments in this place must be prepared to admit."

RECORD OF MEDICAL SCIENCE.

MEDICAL GRADUATES OF THE PRESENT SEASON.

University of Pennsylvania, - - - - -	153
Jefferson Medical College, - - - - -	117
University of the City of N. Y., - - - -	93
Medical College of South Carolina, - - -	82
Transylvania University, Lexington, Ky., - -	59
Louisville Institute, - - - - - -	47
University of Maryland, - - - - - -	38
Ohio Medical College, - - - - - -	35
College of Physicians and Surgeons, N. Y., -	32
Kemper College, - - - - - - -	27
Medical College, Richmond, Va., - - - -	24
Yale College, - - - - - - -	18
Harvard University, Boston, - - - - -	17
Pennsylvania College, - - - - -	7

MR. PAGET'S REPORT CONTINUED.

NERVOUS SYSTEM.

Minute Structure. Remak says that on the axes of each of the larger primitive tubes of the abdominal nervous cord of the River Cray Fish (*astucus fluviatilis*,) there is, in the recent state, a winding bundle of extremely delicate fibres occupying one-third or one-fourth of the whole diameter of the tube. The fibres of this *central fasciculus* are smooth, parallel, without branches or anastomoses, and less than 1-5000 of an inch thick. They may be seen distinctly when the tubuli are injured; some of them often protrude from the broken extremity. They are found however, only in tubules from 1-60 to 1-30 of a line in diameter; smaller tubules than these either appear translucent or contain a fine granular substance, and none but the smaller tubules, such as these, are found in the nerves, and nervous trunks near the abdominal cord. The spaces between the central fasciculi and the walls of the larger tubules are filled by a clear, colourless fluid. The relation of the central fasciculus in the large tubules of the nervous cord to the central substance of ordinary nerves (the *primitive band* of Remak) is uncertain.

Repair and union of nerves. Dr. Bidder, of Dorpat, has made several experiments to determine

whether nervous filaments of originally different functions can be made to unite. He experimented on the lingual and hypoglossal nerves of dogs, but the results were inconclusive. They, tended, however, to prove that such a union does not take place: for in several of the cases the connected portion of the two trunks were found, on subsequent examination, disparted, and each had united again with that portion of itself from which it had been separated. It was found that a sufficient union for the restoration of function can take place in three or four months, although a portion of a nervous trunk eight lines in length has been completely removed.

Reflex action. Some evidence in favour of the view that the nerves of the excitomotory system form a system distinct from those conveying sensation and volition, is afforded by the investigations of Mr. Newport. He finds that in the myriapoda the fibres which correspond to the true spinal cord in vertebrata are distinct from those connected with the cephalic ganglia. They form part of the cord in the intervals between the abdominal ganglia, and may be traced from the periphery into the several ganglionic centres from which they pass backwards along the cord until they arrive at the next ganglion, from which they pass again to the surface of the body. Now there is reason to believe that the ganglia are not sensitive: for the reflex acts, which are repeatedly performed after the removal of the head or destruction of the central ganglia, are performed without any appearance of volition being exercised in them, and always in one and the same manner.

Influence of the nervous centres. Professor Volkmann, one of the most accurate experimenters of modern times, has occupied himself in testing the value of those experiments which are supposed to prove the direct influence of the central nervous organs upon the movement of the viscera.

With regard to the part of the centres on which the movements of the heart depend,—Volkmann shows that in fresh-slain animals the movements of the heart are so completely irregular, even when left to themselves—in one half minute hurried, in the next retarded, then stopping for one or more minutes and then of themselves going on again—that it is impossible to determine the influence of any supposed excitant of the brain or spinal cord. From a great number of experiments, very carefully conducted, no fixed result could be arrived at except this, that the existence of any direct influence exerted on the heart by irritating the nervous centres is as yet altogether doubtful.

He has come to the same conclusion, upon equally good negative evidence, in regard to the effects supposed to be produced on the motions of the stomach and intestines by irritating the brain and cord. He could find no such influence exerted. The motions of the alimentary canal often entirely cease for a long time, and are then of themselves renewed; but when once they have entirely ceased, no irritation of the nervous centres can reproduce them, although it is certain that after the canal ceases to move, the nervous centres are still irritable. He peremptorily denies Budge's experiment in which he believed that though the peritoneum of the abdominal walls was left, the intestines moved when the central organs were irritated, and ridicules the *active inflation* of the stomach, which Budge supposed to be thus produced. With equal positiveness he denies the truth of Budge's statements respecting the elevation and expansion of the testicle when a part of the cerebellum is irritated. In repeated trials he could produce no such effects as Budge reports, in either the digestive canal or the testes. His conclusion is, "I am far from denying that the central organs exercise an influence on the motions of the viscera, for pathological observations make that certain. But they do not prove that this influence is a direct one; and experiments on living or fresh-slain animals prove it still less."

Brain. In a very valuable contribution to the statistics regarding the weights of organs—of which, however, the greater part can as yet serve only to add to the necessary heap of evidence—Dr. John Reid has made it probable—1. That the cerebellum does not attain its maximum weight at seven or a few more years of age, though it does attain it sooner than the other organs, and the size of the whole brain, in proportion to the entire body, is greater in the child than in the adult. 2. That the average weight of the cerebellum compared with that of the whole brain, is a little greater in the female than in the male. 3. That though the male brain is on the average heavier than the female, yet in proportion to the weight of the whole body, it is rather less heavy. 4. That the brain does not in emaciation diminish in the same proportion as the rest of the body does.

M. Parchappe has shown from his measurements and weighings, that in regard to *the size of the head*—1, that of males is to that of females as 16,128: 15,294; 2, it increases gradually to the sixtieth year, chiefly through enlargement of the frontal sinuses, and after that time diminishes; 3, it is in some measure proportioned to the stature. And in regard to the *size of the brain*—1, that the male is to the female brain, on an average, as 156; 125, and that in weight they have about the same proportion; 2, that it increases to the fortieth year, and then decreases to the seventieth; 3, that it bears some proportion to the stature; 4, that the intellect is not absolutely proportioned to the size of the brain, but is proportioned to the size of the hemispheres, and especially to the extent of their surfaces.

Dr. George Burrows having repeated the experiments of Dr. Kellie and performed others, has shown, in opposition to the opinions commonly entertained, 1st, that the brains of animals bled to death are deprived of their blood, and rendered pale and anæmic; 2, that the quantity of blood in the head is greatly affected by posture and gravitation; 3, that in death by apnœa there is intense congestion of the cerebral vessels. And from these facts and from several considerations he deduces that the opinion that the quantity of blood within the cranium is at all times the same is untrue. Admitting that the total contents of the cranium must be at all times nearly the same, the cerebro-spinal fluid is rapidly removable from one site to another, and capable of being altogether removed by absorption; so that this fluid may be regarded as supplemental to the other contents of the cranium—at one time giving place to the increased quantity of blood, at another making up for the deficiency of blood in the vessels, and in the same manner varying according to the actual quantity of nervous substance.

Spinal cord. From Dr. Knox we have a description of the spinal arachnoid, maintaining that the account usually given of it and of the absence of any regular communication between its cavity and that of the cerebral ventricles is correct, in opposition to the descriptions of Dr. Sharpey and Mr. Ellis.

Drs. Stilling and Wallach deny the existence of globules in the gray matter of the spinal cord, and say that those which have been held to be globules are fragments of divided nerve-tubes. These tubes of the gray matter they describe as differing from

those of the white in being of less diameter, having thinner external walls, and being differently coloured. The course of some of them is longitudinal; that of others transverse, and these are continued into the white substance of the cord, crossing the direction of its fibres, but never uniting with them. The filaments of the roots of the nerves are continuous, not with the white filaments or tubules of the cord, but with these its transverse gray filaments.

In some "Additional experiments on the spinal marrow," Dr. Van Deen mentions two which he has frequently repeated in the presence of competent judges, to prove that the nervous fibrils of the limbs of the frog do not proceed to the brain, but terminate in the spinal marrow. In the first experiment the whole spinal marrow of a frog is exposed, and *all* the roots of all the nerves which go to the fore-legs and abdomen are cut on both sides; the marrow is then divided a little above the place where the nerves of the fore-legs are cut through, and its divided end being gently raised, a portion of glass or paper is pushed under it; but this is done only for the convenience of the further cutting. If now small portions of the spinal marrow are cut off successively from above downwards with great care and without shaking, no muscular movements are excited in the hind-legs; and the sections may be continued to within a little of the place at which the first lumbar nerve leaves the spinal marrow. It is on cutting this part that one first sees muscular motions in the upper part of the thigh; and as one goes on cutting lower down they ensue in both the hind feet.

In the second experiment all the roots of all the nerves of the hind legs are first cut on both sides of the cord, and a portion of paper being put under the lower end of the cord, pieces of the cord are cut off in succession from below upwards. No signs of pain are induced, nor (even when the animal is beheaded) is any motion of the fore-legs excited, till one comes to that part of the cord from which the undivided roots are given off.

These two experiments prove, says the author, 1st, that the primitive fibrils do *not* pass through the spinal cord to the brain, since, if that were the case, every division of the cord in the first experiment must produce motion in the hind-legs, and every division in the second must have excited pain, or, at least, some motion of the fore-legs; and 2dly, that the spinal marrow is not capable of propagating any irritation communicated to it to a great distance through itself, unless nerves are connected with it.

An interesting case bearing upon the physiology of the several columns of the cord is related by Dr. Webster. There was complete loss of voluntary motion in the trunk and limbs, with retention of natural sensibility in them, and active reflex movements, in consequence of softening of the whole thickness of the middle part of the cervical portion of the spinal cord. The case is inexplicable in the present state of knowledge, unless we believe that Van Deen's experiments are conclusive, which seemed to prove that the gray matter of the cord can, generally speaking, convey centripetal impressions to the brain, but not centrifugal impressions from it, and, besides, suppose that in this case the morbid change of the gray matter was not so complete as wholly to interrupt its functions. There are other cases sufficient to prove that considerable degrees of softening and other changes of structure of the cord may exist without complete loss of function.

Mr. W. F. Barlow has published some good remarks on the influence of the impressions from sudden changes of temperature in producing reflex movements.

Particular nerves. Optic. Professor Erdl considers that he has traced the fibres of the optic nerves through the following long course: From the optic tract they diverge and expand in the substance of the thalami, then again converge towards the anterior part of the thalami, and unite into a cord distinguished by its white colour, which descends into the corpora albicantia, forms a loop in them, and then turning upwards and forwards ascends through the anterior crura into the body of the fornix. From the fornix the fibres are continued into its posterior crura, and into the corpora fimbriata, in which they descend into the pes hippocampi on each side, whence again they ascend in the tapetum to the posterior part of the corpus callosum, in which the fibres of the two sides again unite. He describes also the generally admitted fibres passing from one retina to the other through the anterior part of the optic commissure; and he supposes that the peripheral ends of these fibres are connected with those of the fibres whose course is described above, so as to form a kind of closed system or nervous ring.

Third nerve. Dr. Fäsebeck of Brunswick, describes a branch of the superior division of the third nerve, which is given off soon after that nerve enters the orbit, passes between the superior and external recti muscles of the eye, and penetrates the external rectus. He describes also a branch one-eighth of a line in thickness, going from the otic ganglion into the spheroidal sinus, another going from it to the vidian, and a third going to the tensor palati muscle.

Facial nerve. It was known that in paralysis of the facial nerve of one side, the uvula was commonly drawn to the opposite side, and this was supposed to indicate that the facial is the motor nerve of the palate. Some doubt was thrown upon the conclusion by M. Debrou, who showed that the uvula in many persons was naturally not suspended in the middle line. But this objection has been removed by M. Diday, who has observed a case in which the uvula was drawn to the opposite side while the paralysis of one nerve lasted, but gained its straight position when the paralysis ceased. It seems probable, therefore, that at the junction of the superior petrous branch of the vidian with the facial, branches are sent from (not to) the latter which go to the spheno-palatine ganglion, and thence through the posterior palatine nerves to the soft palate, as Soemmering believed.

Corda tympani. Dr. Guarini states that he can demonstrate visibly that the corda tympani comes off as a distinct branch from the facial nerve, without any communication with the vidian. He gives the following reasons for believing that through the corda tympani the facial has a motor influence on the tongue. His experiments were often repeated before Panizza and others. 1. When the hypoglossal nerve is galvanized the tongue is moved convulsively forwards and backwards and upwards and downwards, but the fibres of the middle portion are quiet. 2. When the trigeminus is galvanized the tongue never moves. 3. When the facial is galvanized the tongue moves quickly upwards and downwards, and there is a kind of vermiform motion of its middle part. The first movement depends on the styloglossi muscles, which have a distinct branch from the facial; the second on the linguales, to which branches can be traced from each corda tympani. 4. After dividing the hypoglossal nerve the movements of the styloglossus and lingualis alone continue, and these may be excited by galvanizing the facial. But the ver-

miform motion does not continue after (in the same case) the corda tympani is destroyed.

Nervous vagus and *nervous accessorius.* Mr. Spence has contributed a fact of great importance to the reconciling of the contrary statements respecting the motor functions of the pharyngeal and inferior laryngeal branches of the vagus nerve. He has traced a filament (distinguished from the rest of the vagus by its white colour,) which, arising from the groove between the olivary and restiform bodies, passes along the course of the vagus trunk, but goes over without joining the superior ganglion, and does not join the vagus trunk till just above the inferior ganglion. At this point of junction it is also joined by the internal branch of the accessorius, and from the junction of the two the pharyngeal branch of the vagus is given off. The conjoined white cord then descending with the vagus, seems to pass principally into the recurrent nerve, and probably sends filaments into the œsophageal branches.

Mr. Spence, whose dissections agree nearly with those of Bendz, proposes for the separated white cord of the vagus the name of the motor column of the vagus, (motor *root* would perhaps be better,) and likens its arrangement to that of the motor root of the fifth nerve, passing under the Gasserian ganglion, and joining the trunk beyond it. The pharyngeal branch of the vagus and the recurrent laryngeal being thus given off from the internal branch of the accessorius and from a motor root of the vagus, their purely motor functions are sufficiently accounted for; and the experiments of Dr. John Reid, in which irritation of the roots of the vagus nerve produced movements of the larynx, are explained. It is still, however, not clearly explained why his experiments of irritating the accessorius within the skull did not (as those of M. Longet did,) produce movements of the same organ. It is possible that all the filaments of the nerves were not implicated in the irritation.

A confirmation amounting almost to proof of this view of the influence of the nervus accessorius in the movements of the human larynx, is afforded by the fact, that according to Professor W. Vrolik, the internal branch of the nervus accessorius in the chimpansé does not join the vagus, but goes at once and separately to the larynx, while the external branch is distributed almost exclusively to the trapezius. And other facts confirmatory of the same view are supplied by the experiments of Signor Morganti; which also tend to show that the external branch of the accessorius contains the fibres which have their origin lowest down on the cord, while the internal branch contains those which arise higher up, just below the vagus, of which the author considers the accessorius to be the anterior root.

Spinal nerves. Mr. Viner Ellis has described minutely the arrangement of the posterior branches of the spinal nerves. Within the extent of the multifidus spinæ muscle, including therefore all the spinal nerves, except the suboccipital and the last two sacral and the coccygeal, all the posterior divisions of the spinal nerves have an external and an internal branch. Of the cervical nerves the external branches supply the cervicalis ascendens, transversalis colli, and trachelo-mastoid muscles; the internal and larger branches supply the multifidus spinæ, semi and interspinales, and those of the four highest give off cutaneous branches. Of the posterior divisions of the dorsal nerves the internal branches penetrate the multifidus spinæ and semispinalis, and give cutaneous nerves from the six upper; the external branches enter the erector spinæ and levatores costarum, and cutaneous portions spring from about the six lower. In the lumbar nerves the internal branches of the posterior divisions end in the multifidus spinæ, and the external branches, giving cutaneous nerves from the three upper, terminate in the erector spinæ. In the three upper sacral nerves the internal branches enter the multifidus spinæ, the external and larger become cutaneous after uniting by anastomotic arches with each other and with the external branch of the last lumbar and fourth sacral nerves.

Sympathetic nerves. Dr. A. Von Walther has made experiments in which (after exposing them from behind, he has divided upon the front of the spine, near the sacrum and close to the aorta, some four or seven filaments passing from one of the trunks of the sympathetic nerve to the ischiatic plexus. (The mode of separation is acurately described.) The nearly constant result was, that after two days the capillary circulation on the operated side became more rapid, the capillaries smaller, and the blood-corpuscles in them disproportionately few. This lasted till about the fifth day; then for a day the circulation became natural, and then it became slower and pulsatile, and gradually ceased. The blood-corpuscles accumulated in the larger vessels in spots, exudation took place, and the membrane of the web became soft and rotten.

With one exception in many experiments these changes occurred only on the foot of the injured side; yet, ingenious as they are, there must be much doubt as to the sufficiency of these experiments to prove the influence of these sympathetic nerves upon the irritation of the limb. The mere injury of the other nerves of that side would produce some effect, especially in animals tied down for fourteen or more days.

Dr. Fäsebeck finds a sublingual ganglion between the mylohoideus muscle and the sublingual gland, about two lines from the lower border of the latter. It is a round, flat, grayish-red swelling, about a line in diameter, and receives branches from the lingual branch of the fifth, from the corda tympani, and from the filaments of the plexus around the sublingual artery. There proceed from its anterior and inferior part six branches, which penetrate the sublingual gland, and of which one accompanies the duct. He describes also six ganglia, each from one to three lines in diameter, between the lower part of the trachea and œsophagus, and between the latter and the spine, formed on branches of the sympathetic, vagus, and recurrent nerves, and giving filaments to the cardiac plexus, aorta, pulmonary artery, thoracic duct, superior cava, trachea, œsophagus, and pericardium.

ROYAL ACADEMY OF MEDICINE, PARIS.

Among the proceedings of this body in November last, we find a report of MM. Lagneau, Gimelle, and Berard, on several surgical cases, addressed to the Academy by M. Lépine, surgeon to the Hospital of Chalons sur-Saône,

WOUND OF THE LEFT HYPOCHONDRIUM.—ESCAPE OF THE STOMACH.—ILLUSTRATION OF THE TRUE MECHANISM OF VOMITING.

This case was one of a penetrating wound of the abdomen, followed by escape of the stomach, the transverse colon, and the epiploon, cured in twenty-one days.

A labourer, endeavouring to place a yoke on the head of a bull, received several wounds in the abdomen from his horns. One of these, about eight inches in length, occupied the left superior lateral re-

gion of the abdomen, following the margin of the false ribs and of the last true one, as far as the xiphoid appendix. The patient was able to return home on foot, a distance of about a hundred feet; on his way he in vain endeavoured to vomit. M. Lépine arrived about two hours after the accident, and found that the wound allowed the stomach, enormously distended, to escape, as also the omentum and transverse colon. The stomach appeared strangulated by the wound; some of its veins were swollen to the size of a common quill.

The first thing done by the surgeon was to return the protruded parts. The reduction of the colon was attempted and effected, although with some difficulty, owing to continued nausea. M. Lépine then applied both hands on the large curvature of the stomach, without being able, however, to circumscribe it entirely, and endeavoured, by pressure, to return a portion of the gases which distended the organ. For a long time the efforts made by the patient to vomit, efforts which were repeated at very short intervals, prevented the reduction; as soon as a portion of the stomach had been returned, the spasmodic contraction of the diaphragm and of the abdominal muscles overcame the resistance offered by the hands of the operator, and re-expelled the part. At last, by perseverance and gentle pressure, the reduction of the stomach was accomplished, and that of the omentum soon followed.

During all the time that the stomach was out of the abdomen, M. Lépine neither saw nor felt it contract, although, in order to give rise to contraction, he immersed his hands in cold water previously to placing them on it. The reduction had scarcely been accomplished when, to the nausea and vain efforts to vomit which had existed since the accident, succeeded true vomiting, which relieved the stomach of a quantity of food that the patient had taken half an hour before receiving the wound.

We have not spoken of the other less severe wounds which occupied the abdominal parietes. One of them, nevertheless, is worth noticing; the horn had torn the teguments at the level of one of the external inguinal rings, and, following the inguinal canal, penetrated to the peritoneum. The intestines were seen at the bottom of this wound, which presented also to view the spermatic cord, quite denuded.

The margins of the solution of continuity which had allowed the stomach to escape, were brought together by means of the quilled suture; and a fold of linen was placed in the wound of the inguinal region.

The results of the wound were not serious. The patient only experienced slight pains, which gave way after two bleedings; he had scarcely any fever. A slight swelling of the lips of the wound, which supervened forty-eight hours after the operation, obliged M. Lépine to loosen the sutures, which were only definitively withdrawn on the sixteenth day. The wounds were all cicatrised, and the cure was complete, on the twenty-first day. Since then (1825) unto the present time, the patient has remained perfectly well.

Remarks.—This interesting case not only bears directly on the mechanism of vomiting, but presents several remarkable features, to which we beg to draw the attention of the Academy:—1. The escape of the stomach from a wound of the abdomen is very rare. 2. The difficulty experienced in reducing the organ being attributable to its extreme distention by gases, was not puncture with a small trocar indicated? 3. The success of the quilled suture proves the groundlessness of the fears entertained by some surgeons, and more especially by the illustrious Larrey, whom we lost last year, with reference to the use of this suture in wounds of the abdomen. 4. The non-appearance, subsequently, of hernia, although the patient has never worn a bandage, is calculated to inspire doubts as to the danger of hernia, which, according to some surgeons, is much to be feared after wounds dividing the entire thickness of the abdominal parietes.

M. Lépine judiciously remarks that a more favorable opportunity of appreciating the part which the stomach performs in vomiting could not present itself. The stomach, filled with aliments recently ingested, escapes from the cavity of the abdomen, and the want to vomit manifests itself spontaneously. The phenomena, observed by M. Lépine, confirm the result of the experiments made by MM. Beclard and Magendie. During all the period that the stomach remained out of the abdominal cavity there was no apparent contraction of the muscular fibres of the organ, and none of its contents were expelled, although the patient made violent efforts to vomit. As soon, however, as the stomach had been returned into the abdomen, the same efforts were followed by the expulsion of its contents. This fact, as M. Lépine observed, shows that if the stomach be not entirely passive during the act of vomiting, at all events, the most important part is performed by the diaphragm and the abdominal muscles.

M. Lépine was also able to observe a phenomenon noticed by M. Magendie in his experiments on animals, and which he supposed likewise to exist in man. It seems that while vomiting, animals swallow a considerable quantity of air. Speaking of the enormous dilatation of the stomach by gases, M. Lépine remarks: I can only explain this distention by the air which the patient appeared to swallow after each effort of vomiting; I then observed him to perform repeatedly the act of deglutition, each deglutition being accompanied by a noise which seemed to be created by the pushing back of air.

NECROSIS OF A PORTION OF THE FRONTAL AND PARIETAL BONES.—PURULENT COLLECTION IN THE RIGHT HEMISPHERE OF THE BRAIN.—HEMIPLEGIA ON THE RIGHT SIDE.

This case presents great interest with reference to the relation which existed between the seat of the lesion of the brain and the parts of the body which were struck with paralysis. A man receives a blow on the right temporal region; several months afterwards he is seized with cephalalgia, and presents a puffy state of the integuments of the right temporal region, of the right cheek, and right ear. The functions of the brain become disturbed, and paralysis attacks the right arm and leg. An abscess forms on a level with the temporo-maxillary articulation; is opened, and the patient experiences temporary relief. Very soon, however, he falls into a still more serious state of prostration. His intellectual faculties entirely give way, the paralysis becomes complete on the right side, and he succumbs two months after the first apparition of the morbid symptoms.

The following are the lesions revealed by *the autopsy*:—Perforation of the bones of the skull at the level of the anterior and inferior angle of the right parietal. The internal lamella of the frontal and parietal is separated from the dura mater for an extent of two square inches, and is necrosed and perforated in several places; the dura mater is healthy, except a little redness and increased thickness opposite the lesion of the bones. The consistency of the brain is natural; its surface is not diseased in the region cor-

responding to the alteration of the bones of the skull. "The *right* hemisphere contained a considerable collection of healthy thick pus, which escaped as soon as the instrument had penetrated the cavity in which it was contained."

This last sentence is literally reproduced from Lépine's account of the case. We are sorry that he does not enter into greater details, as it is of great importance to know in what part of the hemisphere the abscess was situated, whether it was in the anterior, middle, or posterior lobe. Whatever may have been its situation, it is evident that the lesion of the brain was on the right side, and that the paralysis attacked the arm and leg on the same side. M. Lépine, in mentioning this circumstance, remarkes how unusual it is. All pathologists have, indeed, noticed the opposition which exists between the side of the head which is wounded and the side of the body which is paralysed. Hippocrates himself states that those who are wounded on the right side become impotent on the left, and *vice versa*. The authors who followed, although they recognised the correctness of this remark in a general sense, having sometimes observed the contrary, erroneously concluded that the side of the paralysis is not in relation with the local lesion of the brain. This error was owing to the situation of the external lesion being the one taken into consideration and compared to the paralysed side; whereas the seat of the internal cerebral lesion ought to have been the one considered. Nevertheless, cases which we owe to Morgagni and Lancisi, as also several observed in our own times by MM. Bayle and Dechambre, would seem to indicate that the paralysis may occupy the same side as the organic alteration. We must not forget, however, to recall to mind that these were cases of softening of the brain, and not of traumatic effusion. We know only one case, that of M. Blandin, in which the paralysis was on the same side as a traumatic effusion. Henceforth we shall have to add to this case the one narrated above to the French Academy. How can we explain facts so exceptional as these? Can we admit the explanation given by Gall and Spurzheim, and say, with them, that the presence of the cerebral lesion and of the paralysis on the same side is owing to the absence of decussation of olivary fasciculi of the spinal cord? This question requires elucidating.—*Lond. Lancet, Jan.* 20.

PARALYSIS OF THE PORTIO DURA IN AN INFANT.

At a meeting of the Westminster Medical Society, Jan. 20th, 1844, Dr. Chowne detailed a case of paralysis of the portio dura, affecting the face in the usual way, under which a child had laboured as early as the tenth month of his age.

James Loft, of fair complexion, blue eyes, and light hair, was supposed by his mother to be more than usually backward in his attempts to speak, and under these circumstances became Dr. Chowne's patient. The child at the time was twenty-two months old, and had eighteen teeth. The face was drawn a little to the left side; this was visible although not in a strong degree, when the child was still, but when he smiled it became very visible and while crying it amounted to a strong distortion. When the child was played with and laughed, the face was also distorted; the angle of the mouth being drawn to one side, the upper lip on the same side was drawn a great deal up, leaving the mouth very much open on the left side, while it was nearly closed on the right.

When the child was unexcited and the face still, the eyes appeared nearly alike as to degree of openness; there was, however, generally if not always, a greater accumulation of tears on the surface of the eye, and resting on the under lid of the right eye than on that of the left. When the finger was put near the eyelashes of the right eye the palpebræ closed partly but not quite, while those of the left closed perfectly at the same time without any other excitement than that applied to the right. When, however, the finger touched the eyelashes the palpebræ of the right eye also closed completely. During sleep the left eye was closed, the right partly open.

During both laughing and crying the right side of the face was particularly still, dull, and inexpressive while the left was in full activity and animation. The child was intelligent and playful, and when played with and tickled laughed heartily; at these times the contrast between the two sides of the face was remarkably striking and characteristic; one side was full of expression and mirth, while the other presented a sombre, dull, inanimate stillness, wholly devoid of participation in the mirth enjoyed by the child, and depicted in the merry side of his countenance. This appearance, even in so young a child, was very grotesque.

The mother had not noticed anything particular in the child until about ten months prior to Dr. Chowne's seeing it; that is to say, not until the child, was ten months old. At that time the state of the face was pointed out to her by her friends; not by friends, however, who had been in the habit of seeing the child. Those friends and acquaintances who, like the mother, had seen the child frequently, or almost constantly had not noticed the peculiarity; hence it is not certain at what time the malady first existed.

The mother was not aware that the child had received any injury, neither had it had any illness which had even attracted her attention to the head, or ear, or face, particularly.

At the time the child was seen by Dr. Chowne alterative aperient medicines were prescribed, and all appearance of indisposition passed away, so far as the health was concerned, but the paralysis remained unaltered.

Dr. Chowne observed that paralysis of the portio dura was a very unusual affection in so young a subject. He was quite unable to decide upon the cause of the affection in this case. In answer to a question, he said the labour in the case of this child was not a difficult one.

A discussion of some length followed between various members of the society, chiefly with reference to the pathology of cases of paralysis of the portio dura, in which various opinions were expressed, but none of them require to be separately detailed. It may be mentioned, however, that Dr. Reid had seen two cases of partial paralysis of this nerve consequent upon the application of the forceps to the child's head during labour.—*Ibid.*

DR. J. HAWKINS ON THE TREATMENT OF CONGENITAL INGUINAL HERNIA.—OPERATION.

Mr. J., aged twenty-six, sent for Mr. Whitmore, November 1, 1832, late in the evening, complaining of pain in the bowels, &c.

A tumour, about the size of an egg, situate in the left groin, was discovered—tense and very painful on pressure. He had been sick, and felt slight pain in the bowels: no stool had passed since October 29. After giving some general directions, Mr. W. left him for the night, being in attendance on a dan-

gerous midwifery case. On visiting him the next morning, Mr. W. found him vomiting, with an anxious countenance, and the usual symptoms of strangulated hernia. The warm bath, bleeding from the arm, and moderate use of the taxis, were tried, but the reduction of the hernia was not accomplished; neither testicle had descended into the scrotum.

He gave the following history of his case; He had a rupture as long as he can remember, and about fifteen months since he had a similar attack to the present one, while residing in the country. He sent for a surgeon, who failed in giving him any relief; having dismissed this practitioner, Mr. J. sent for a noted "quack doctor." The case being attended with obstinate constipation, this empiric prescribed and administered a drastic purgative powder, which he called "gold dust," and after each dose he made the patient walk about the room. The rupture was reduced.

About twelve, A. M., Mr. Charles Fowler saw the patient with Mr. Whitmore, and having again endeavoured cautiously to reduce the hernia by the taxis ineffectually, the operation was proposed and consented to by the patient.

Nothing particular took place in its progress till the sac was opened, when an unusual quantity of dark brown fluid escaped; the contents were omentum and intestine; the stricture was divided, and the protruded parts returned into the cavity of the abdomen. This being done, the testicle was found lying in the sac, which at once demonstrated the true nature of the case; it was clearly one of congenital inguinal hernia. The wound was closed, and the man recovered without any untoward symptom manifesting itself.

I have been induced to forward this case to you, because I believe it to be one of unusually rare occurrence; cases of congenital hernia almost invariably descend into the scrotum. I have repeatedly witnessed the performance of operations under such circumstances. A case of congenital scrotal hernia, in which the testicle had not passed the external abdominal ring, was operated on successfully in the Cheltenham Hospital, by Mr. Eves. I consider it would not be justifiable to remove a testicle if healthy during the operation. (I was informed by this man that he was the father of two children, although neither testis had passed into the scrotum.) On the other hand, the presence of the testis must of course prevent the application of a truss and thus the patient is constantly exposed to the dangers of strangulated hernia.—*Prov. Med. Journ. Jan.* 20, 1844.

PERFORATION OF THE ILEUM COMMENCING ON THE PERITONEAL SURFACE.

REPORTED BY DR. ADAMS, OF GLASGOW.

William Mitchell, aged 54, tolerably robust, temperate, and enjoying good health up to May 28, 1840. At ten o'clock, A. M., of that day, I was sent for, and found him affected with all the symptoms of strangulated hernia,—his scrotum filled on both sides with intestine, the left protrusion irreducible. The taxis was successful, and the urgent symptoms almost immediately relieved. At my next visit he complained much of pain in the left iliac region, which a few leeches, followed by warm fomentations, abated considerably. I heard no more of him until Saturday, the 13th of June, and at ten, P. M., on that day, I was again summoned. He had enjoyed good health from the time of my last visit, thirteen days before, up to half an hour prior to the present one; however, the tenderness in the left iliac region had never entirely subsided, and was sufficiently acute to prevent his wearing other than his old bag-truss. He had been unable, also, to reduce, as formerly, the entire hernial protrusion, but that circumstance caused him uneasiness, and his bowels were easily enough regulated. About half an hour before my visit, he had, whilst indulging in the company of some friends, been suddenly seized with a violent pain in the left iliac region, accompanied with an extreme sense of weakness, followed by sickness and violent retching. At my visit the pain had become more diffused over the lower part of the abdomen, which was painful to the touch; the inferior portions of the abdominal muscles were so contracted as to feel as hard as a board; the expression of countenance was exceedingly anxious, and the features were greatly altered in appearance; the whole surface of the body was cold, and covered with a profuse perspiration; the pulse was 120, small and thready; the sickness and vomiting still continued. With respect to the herniæ, both protruded considerably, but could be returned with tolerable facility; excepting a doughy mass, which had been felt in the left hernial sac, even after it was emptied of the great portion of its contents. From the large size of the abdominal aperture, from the ease with which the greater portion of the hernia could be reduced, and from the statement of the patient, that it had never been more so since my last visit, I was satisfied that there was no strangulation of intestine to account for the symptoms then present. I accordingly diagnosed peritonitis from perforation of intestine. The remedial measures were turpentine embrocations to the abdomen, and, every third hour, three grains of calomel and one of opium. At ten o'clock next morning the patient's appearance was highly satisfactory. He had slept a little during the night; the expression of his countenance was improved; there was less abdominal tenderness; the surface of the body was warmer; the pulse somewhat fuller and less frequent; his bowels were still, however, unopened, and his efforts at micturition were frequent, unsatisiactory, and accompanied with excessive pain. The calomel and opium, with the turpentine embrocations were continued, and the catheter was used. The appearances of amendment in the patient's condition proved fallacious. At two in the afternoon, when I again saw him he was evidently moribund. The efforts at vomiting had returned shortly afier the last visit, and still continued; the pulse was imperceptible at the wrist; cold sweats again bedewed the body; the countenance was anxious in the extreme; the breathing panting, and accompanied with the tracheal rattle. The patient, who was quite sensible, said he had no pain. He died at six o'clock the same evening. Thus, the time which elapsed beetween the last sudden attack and its fatal termination was exactly twenty and a half hours.

Examination Thirty-eight hours after Death.

The body was plump, on many places showed livid patches, and exhaled a most offensive odour; the abdomen was very tympanitic, and the scrotum inflated to an enormous extent; on laying open the abdomen, fetid air gushed out in great abundance; the large omentum was much upon the stretch, and at one point adhered strongly to the left hernial sac; on turning it over, the small intestines were seen highly injected, streaked with lymph, and in many places covered with purulent matter, they did not, however, adhere to each other, nor was any portion

of them engaged in either hernial sac. In the pelvis and the right and left lumbar regions, we found a considerable quantity of a dark-brown colored fluid, having a most offensive feculent smell; and on examining more minutely the state of the intestines, we found, in addition to the general effects of acute inflammation already described, towards the left side, and in that portion of the intestine usually considered as the commencement of the ileum, a circular perforation, large enough to admit the point of the forefinger. The appearances of the inflammation were more vivid in this situation, and the quantity of lymph and purulent matter thrown out was greater than in the other parts. It was evident that the intestinal tunics were not all destroyed in an equal manner, *the destruction of the peritoneal being considerably greater than that of the mucous.* On the same portion of intestine, and within an inch and a half of the perforation, a small spot of ulceration was discovered, *confined entirely to the serous membrane.* The mucous coat was throughout healthy, and even in the immediate vicinity of the perforation, showed no traces of increased vascular action. We examined most carefully the whole intestinal tract, from the stomach to the rectum, but could discover no further lesion. The mesenteric glands were of their normal volume. The case I consider to be almost unique.—*Edin. Monthly Journal.*

VEGETABLE ORIGIN OF PORRIGO DECALVANS.

Porrigo decalvans is a disease of the skin, usually of the scalp, producing a falling-off of the hair from the parts affected. It is characterised by rounded spots or patches, the surface of which is usually covered with small dry scales, or a white bran-like powder. If this powder be examined with the microscope, it will be found to consist of minute *cryptogamic* plants. The hairs that have fallen off are observed to be encrusted on all sides with these singular growths, and to form a veritable vegetable sheath, which invests them from their point of emergence from the skin to the extent of three or four millimetres. M. Gruby (the discoverer, we believe, of this pathological curiosity) has denominated the fungus by the appellation of *microsporon Andouini*, in compliment to M. Andouin, whose inquiries have done so much to illustrate the nature of the parasitic plants, which infest the tissues of living animals.

This porriginous fungus commences its development on the surface of the hairs, at the distance of one or two *millimetres* from the epidermis; the first sign of its existence being that the tissue of the hair is observed to lose its transparency, in consequence of the formation of excessively minute molecules on its surface.

The altered tissue exhibits the appearance of having distinct fibres, and of cells larger than the fibres of the hairs, elongated and situated parallel to their axes. It is in this part that the *microsporon* is first perceived. By its gradually extending in all directions, the adjoining hairs are quickly affected in a similar manner, and the morbid growth advances until patches of the affected hair fall off, and leave the skin nearly quite bald.

These fungi are developed and multiplied with surprising rapidity, and hence the extension of the diseased patches is sometimes very sudden. The hairs usually break off at the point where they are invested with the vegetable covering. The thickest hairs resist the invasion of the disease the longest. The vegetable nature of *porrigo decalvans* is a fact that speaks for the contagiousness of the disease. How far any of the other varieties of this scalp-affection are traceable to a similar origin has not yet been ascertained. The first step to the cure of a disease being to understand its nature, we may fairly anticipate that the discovery of M. Gruby will have a therapeutic, as well as a physiological, interest.—*Med. Chir. Rev.*, Jan.

*** We have recently been enabled to confirm the observations of M. Gruby. Porrigo decalvans is, in many cases, very intractable, but we have found it yield to local applications, in some instances, of sulphate of iron. Others we have treated successfully by tincture of cantharides, combined with castor oil.—*London Lancet.*

Preparations of Iron dangerous in certain forms of Chlorosis. By M. Trousseau. (*Journal de Pharmacie*, June, 1843.) Iron has generally been regarded as a medicine which could not do harm in cases of chlorosis, but M. Trousseau's attention was powerfully attracted to the fact, that it is sometimes followed with most disastrous consequences, from meeting with two cases where the chlorotic affection not only resisted the preparations of iron, but where it seemed to light up a latent tubercular affection which rapidly carried off his patients. Since then he has remarked several cases; and, therefore, strongly recommends that iron be not administered in any case of chlorosis where tubercular affection has either been developed, or where there is a disposition to scrofula. As a general rule he states, that, if chlorosis occurs in a young girl about the age of puberty, in whom no scrofulous tumours have been observed since infancy or childhood, and who has never had hæmoptysis, iron, in large doses, may be safely administered with every prospect of soon removing the disease. If, however, there be any grounds for believing that there is a scrofulous tint, iron must be carefully abstained from, and the chlorotic affection must be endeavoured to be removed by change of air, tonic regimen, horse exercise, sulphurous preparations, &c. If the chlorotic affection has come on at the age of 25 to 35, there is reason to believe something seriously wrong, and preparations of iron are to be prescribed with caution; but if it has supervened suddenly on copious loss of blood, uterine hæmorrhage, or over-nursing, provided there be no scrofulous tendency, iron may be safely and freely prescribed.—*Edin. Med. and Surg. Jour.*

Excision of the whole Lower Jaw. By Dr. Signoroni, of Padua. The case of excision of the whole lower jaw, related by Dr. Bartolomeo Signoroni, is interesting as showing that patients may recover after removal of the whole lower jaw, and preserve the power of swallowing and the faculty of speech. In this case, on account of an osteo-sarcomatous affection, the whole jaw was removed at its articulations. The patient speedily recovered, and was a few months afterwards exhibited at Padua, to the Italian Scientific Association. He had completely gained his health, swallowed easily, and his speech was scarcely defective. It is much to be regretted that the details of this case are not given; it may, however, be gathered from the remarks which follow the simple announcement of its success, that the bone was extracted piece-meal, being divided into portions by means of the cutting pliers introduced through subcutaneous incisions. It is to this mode of operating the author attributes the small quantity of blood lost, the rapidity of the healing process, and the general success of the operation.—*Edin. Med. and Sur. Jour.*, *from Annali Universali di Medicini*, Feb. 1843.